CIVIL-TECH CONSULTANTS AND ENGINEERS

Building & Highway Material Testing Laboratory

NABL - Accredited Laboratory as per ISO / IEC-17025 : 2005

Job No.: CTCE/BBMP/W.No.06/KRIDL/CUBE/2013-14

24.05.2014

TEST REPORT ON CONCRETE CUBES

Client	: **Asst. Executive Engineer,** Byatarayanapura Sub Division, BBMP, Bangalore.
Agency	: **Technical Manager - 1,** KRIDL, Bangalore.
Name of the work	: Improvements to roads and drains at Bhuvaneshwarinagara Main Road Left Side in Ward No.06, Dasarahalli Village limits, BBMP, Bangalore.
Reference	: AEE/BTP/(WO)/04/2014-15 Dated: 24.04.2014
Sample ID	: Drain Concrete
Size of cubes	: 150mmx150mmx150mm
Cross Sectional Area	: 22500 mm^2
Technical Reference	: IS: 516-1959 (Reaffirmed 2008)
Grade of Concrete	: M_{20}
Compressive Strength as on	: 28^{th} day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	26.04.2014	24.05.2014	8.195	498.3	22.15
2	26.04.2014	24.05.2014	8.274	506.7	22.52
3	26.04.2014	24.05.2014	8.394	517.8	23.01

Note:

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ಸಹಾಯಕ ಅಭಿಯಂತರರು
ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ
ಬಿಬಿಎಂಪಿ, ಬೆಂಗಳೂರು-24

M/s. Civil-Tech Consultants & Engineers
23/14, 7th Cross, 3rd Stage,
4th Block, Shakthiganapathinagara,
Basaveshwaranagar,
Bangalore-560079.

CIVIL-TECH CONSULTANTS AND ENGINEERS

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Job No.: CTCE/BBMP/W.No.06/KRIDL/WMM/Gradation/2013-14

05.05.2014

GRADATION FOR WMM
MORTH TABLE-400-11

Client : **Asst. Executive Engineer,** Byatarayanapura Sub Division, BBMP, Bangalore.

Agency : **Technical Manager - 1,** KRIDL, Bangalore.

Name of Work : Improvements to roads and drains at Bhuvaneshwarinagara Main Road Left Side in Ward No.06, Dasarahalli Village limits, BBMP, Bangalore.

Reference : AEE/BTP/(WO)/04/2014-15 Dated: 24.04.2014

Date of Testing : 05.05.2014

Material : WMM

Sample Location : WMM Mix Plant

Oven Dry Wt (gm): **26000**

Is Sieve Size in mm	Weight Retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Spec.Limits
53	0	0	0	100	100
45	1025	1025	3.9	96.1	95-100
22.4	6230	7255	27.9	72.1	60-80
11.2	5675	12930	49.7	50.3	40-60
4.75	4250	17180	66.1	33.9	25-40
2.36	3865	21045	80.9	19.1	15-30
0.600	2175	23220	89.3	10.7	8-22
0.075	2495	25715	98.9	1.1	0-8

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Job No.: CTCE/BBMP/W.No.06/KRIDL/SDBC/Bitumen/2014-15 13.05.2014

BITUMEN CONTENT AND GRADATION DETERMINATION OF SEMI DENSE BITUMINOUS CONCRETE MIX

AASHTO T 164 & AASHTO T 30

CLIENT	**Asst. Executive Engineer,** Byatarayanapura Sub Division, BBMP, Bangalore.
AGENCY	**Technical Manager - 1,** KRIDL, Bangalore.
NAME OF THE WORK	Improvements to roads and drains at Bhuvaneshwarinagara Main Road Left Side in Ward No.06, Dasarahalli Village limits, BBMP, Bangalore.
REFERENCE	AEE/BTP/(WO)/04/2014-15 Dated: 24.04.2014
SAMPLE I/D	Roads and Drains at Bhuvaneshwarinagara W.No.06
DATE OF TESTING	13.05.2014

BITUMEN CONTENT DETERMINATION

Description	Trail 1	Trail 2
1. Weight of Mixture before Test, g	500	500
2. Weight of Mixture after Test, g	474	475
3. Weight of Asphalt and Mineral matter Extracted,	-	-
4. Weight of Mineral Matter, g.	-	-
5. Weight of Ash, g		
6. Weight of Bitumen Extracted, g. (corrected)	26	25.00
7. Bitumen content in %	5.20	5.00
8. Average	**5.10**	

GRADATION AFTER EXTRACTION

SIEVE SIZE	Trail 1				JOBMIX
mm	Weight Retained, gm	% Retained	%Cummulative Retained	% Passing	Gradation
13.2	0	0	0	100	100
9.5	37.54	7.92	7.92	92.08	90-100
4.75	268.5	56.65	64.57	35.43	35-51
2.36	45.63	9.63	74.19	25.81	24-39
1.18	43.17	9.11	83.30	16.70	15-30
0.3	34.62	7.30	90.60	9.40	9-19
0.075	28.57	6.03	96.63	3.37	3-8

SIEVE SIZE	Trail 2				JOBMIX
mm	Weight Retained, gm	% Retained	%Cummulative Retained	% Passing	Gradation
13.2	0	0	0	100	100
9.5	43.25	8.65	8.65	91.35	90-100
4.75	279.8	55.96	64.61	35.39	35-51
2.36	53.64	10.73	75.34	24.66	24-39
1.18	46.87	9.37	84.71	15.29	15-30
0.3	29.63	5.93	90.64	9.36	9-19
0.075	28.54	5.71	96.35	3.65	3-8

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